

Joseph K. Haseman, Ph.D.

## **Director of Statistical Consulting**

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## **Education:**

June, 1961 Graduated from High School (Valedictorian)

June, 1965 B.S. (Mathematics) cum laude, Davidson College

June, 1970 Ph.D. (Biostatistics), University of North Carolina (Chapel Hill)

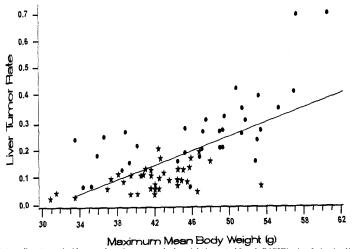
As Director of Statistical Consulting, I direct the Branch's various collaboratve support activities, including the design, analysis and interpretation of NIEHS experimental studies. These research efforts are wide-ranging in scope and involve many members of the Biostatistics Branch. Much of my own collaborative interaction with NIEHS scientists focus on the long term rodent carcinogenicity studies carried out by the National Toxicology Program (NTP). These studies are NTP's most visible research activity, and publication of findings often has significant impact on the regulatory process on both a national and international level. These studies are regarded as the "Gold Standard" in the field and are published both as Technical Reports and in the scientific literature.

Interdisciplinary cooperation and collaboration are essential to ensure the success of these studies. In addition to ensuring that these studies are designed, analyzed and interpreted correctly, I provide major input to the NTP's final interpretation and publication of study results. I am also Project Officer for a contract with Analytical Sciences, Inc, which provides statistical and computational support to the NTP.

To understand fully the value and limitations of the NTP's long term rodent carcinogenicity studies, it is important to examine carefully the various statistical issues that influence the evaluation of these studies. Specific issues that have been the focus of my methodological research during the past several years include:

- 1. use of historical control data;
- 2. investigating the association between tumor incidence and body weight;
- 3. evaluating databases for NTP rodent carcinogenicity studies and for low dose endocrine disruptor experiments; and
- 4. assessing the ability of new models, such as transgenic animals, for identifying human carcinogens.

While future research in the area of rodent carcinogenicity will continue, there will be increasing emphasis on non-cancer endpoints and on mechanistic studies.



Association betwen liver tumor incidence and maximum mean body weight in control female B6C3F1 mice. ●, 1 animal/cage ★,5 animal/cage.

## **Selected Relevant Publications:**

Haseman, J.K. Using the NTP database to assess the value of rodent carcinogenicity studies for determining human cancer risk. Drug Metabolism Reviews 32(2): 169-186, 2000.

Dunson, D.B., Haseman, J.K., van Birgelen, A.P.J.M., Stasiewicz, S. and Tennant, R.W. Statistical analysis of skin tumor data from Tg.AC mouse bioassays. Toxicological Sciences 55: 293-302, 2000.

Haseman, J., Melnick, R., Tomatis, L., and Huff, J. Carcinogenesis bioassays: study duration and biological relevance. Food and Chemical Toxicology 39: 65-70, 2001.

Haseman, J.K., Bailer, A.J., Kodell, R.L., Morris, R., and Portier, K. Statistical issues in the analysis of low dose endocrine disruptor data. Toxicological Sciences 61: 201-210, 2001.

Haseman, J.K. Commentary on the Peto and Poly-k tests. Toxicology Pathology 30: 405-408, 2002.

Pritchard, J.B., French, J.F., Davis, B.J. and Haseman, J.K. Transgenic mouse models: Their role in carcinogen identification. Environmental Health Perspectives, in press, 2002.

## **Related Links:**

Statistical Consulting Services